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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/314,629	05/19/1999	MAKOTO KAYASHIMA	501.37212X00	5470

20457 7590 07/03/2002

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EXAMINER

PARTON, KEVIN S

ART UNIT

PAPER NUMBER

2153

DATE MAILED: 07/03/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

PRG

Office Action Summary

Application No.

09/314,629

Applicant(s)

KAYASHIMA ET AL.

Examiner

Kevin Parton

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 May 1999 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>3, 5</u> . | 6) <input type="checkbox"/> Other: |

DETAILED ACTION

Specification

1. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 2, 5, and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matchefts et al. in view of Hansen.

4. Regarding claim 1, Matchefts et al. teach a network management system comprising a plurality of network devices (figure 1; column 2, lines 65-67) operating in a coordinated manner and a management server (figure 1; column 2, lines 65-67) managing the plurality of network devices, the management server comprising:

- a. Means for confirming consistency of interrelated setup information set up in the plurality of network devices (column 4, lines 18-22).

Although the system disclosed by Matchefts et al. shows substantial features of the claimed invention, it fails to disclose:

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- a. Means for generating interrelated setup information to be used for the plurality of network devices on which settings are to be made, the setup information being generated to maintain consistency.

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Matchefts et al., as evidenced by Hansen.

In an analogous art, Hansen discloses a configuration management system for remote monitoring and configuration of network elements with a management server comprising:

- a. Means for generating interrelated setup information to be used for the plurality of network devices on which settings are to be made (column 5, lines 23-27), the setup information being generated to maintain consistency. Note that the entire focus of Hansen is to maintain consistency.

Given the teaching of Hansen, a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Matchefts et al. by employing the generation of setup information for network elements. The system of Matchefts et al. receives and compares current configuration information to ensure system consistency. It is a logical extension of this to then generate configuration information for the client and re-configure it. This removes the need for a system administrator and decreases possible down time.

5. Regarding claim 2, Matchefts et al and Hansen teach all the limitations as applied to claim 1. Matchefts et al further teach means wherein the management server further comprises:

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- a. Means for retrieving meta-level setup information from said interrelated setup information (column 6, lines 38-56). Note that all the information that makes up the "state variable" is meta-information.
- b. Means for retrieving interrelated setup information set up in said plurality of network devices (column 4, lines 19-21). Note that the server communicates with the elements to obtain configuration or setup information.

6. Regarding claim 5, Matchefts et al. and Hansen teach all the limitations as applied to claim 1. Matchefts et al. further teach means wherein:

- a. The network device is a server (column 2, lines 65-67)

Although the system disclosed by Matchefts et al. and Hansen (as applied to claim 1) shows substantial features of the claimed invention, it fails to disclose including setup information that includes an access privilege of the server.

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Matchefts et al. and Hansen.

A person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Matchefts et al. and Hansen by employing the inclusion of access policy for a managed server. Servers are just another network element to be managed, and security is probably the most important aspect of server management. This would be a natural addition of setup information that would be a necessity for all servers to be confirmed for consistency and automatically configured.

7. Regarding claim 6, Matchefts et al. and Hansen teach all the limitation as applied to claim 1. Matchefts et al. further teach means wherein:

- a. The network device is a computer executing a network application periodically exchanging data (column 4, lines 24-26). Note that in the reference, the “traps” are generated by client applications and exchanged with the management server.
- b. The setup information includes setup information related to the network application (column 4, lines 18-26). Note that in the reference, the configuration information can determine the communication from the client.

8. Claims 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matchefts et al. and Hansen as applied to claim 1 above, and further in view of Crichton et al. and Reid et al..

9. Regarding claim 3, although the system disclosed by Matchefts et al. and Hansen (as applied to claim 1) shows substantial features of the claimed invention, it fails to disclose means wherein the interrelated setup information includes tunneling setup information.

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Matchefts et al. and Hansen, as evidenced by Crichton et al..

In an analogous art, Crichton et al. discloses a system for the setup of communications between machines behind disparate firewalls. The system includes interrelated setup information that includes tunneling setup information (column 4, lines 20-34).

Given the teaching of Crichton et al., a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Matchefts et al. and Hansen by employing tunneling setup information in the standard setup information. Firewalls are a common network element that must be setup in any configuration operation. Setting them up for

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tunneling allows for greater ease of communication between machines on both sides of the firewall.

10. Claims 4, 7, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matchefts et al. and Hansen as applied to claims 1 above, and further in view of Antur et al. and Reid et al..

11. Regarding claim 4, although the system disclosed by Matchefts et al. and Hansen (as applied to claims 1) shows substantial features of the claimed invention, it fails to disclose means wherein:

- a. The network device is a firewall
- b. The setup information includes setup information related to access control for the firewall.

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Matchefts et al. and Hansen, as evidenced by Antur et al..

In an analogous art, Antur et al. disclose a system for configuration (setup) wherein:

- a. The network device is a firewall (figure 2; column 6, lines 50-55).
- b. The setup information includes setup information related to access control for the firewall (column 6, lines 50-55).

Given the teaching of Antur et al., a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Matchefts et al. and Hansen by employing the use of setup information for firewalls. Firewalls require a large amount of setup information and must be commonly administered by a small number of personnel.

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12. Regarding claim 7, Matchefts et al. and Hansen teach all the limitations as applied to claim 1. Matchefts et al. further teach means wherein distributed routing means (to firewalls or other network devices) include means for setting up the setup information in the network device.

Although the system disclosed by Matchefts et al. and Hansen (as applied to claim 1) shows substantial features of the claimed invention, it fails to disclose:

- a. A firewall is disposed between the management server and a network device.
- b. The management server includes means for distributing routing means for routing settings from setup information for the firewall.

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Matchefts et al. and Hansen, as evidenced by Antur et al..

In an analogous art, Antur et al. disclose a system for firewall configuration (setup) wherein:

- a. A firewall is disposed between the management server and a network device (figure 2). Note that the act of configuring the firewall fulfills this requirement. The reference also teaches configuration of other security devices inside and outside the firewall.
- b. The management server includes means for distributing routing means for routing settings from setup information for the firewall (column 5, lines 48-50).

Given the teaching of Antur et al., a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Matchefts et al. and Hansen by

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including routing information for further setup of network devices on the other side of the configured firewall. This allows for a management server at a remote location (possibly a third party) to operate outside the firewall and provide configuration without physical access.

13. Regarding claim 8, Matchefts et al., Hansen, and Antur et al. teach all the limitations as applied to claim 7.

Although the system disclosed by Matchefts et al., Hansen, and Antur et al. (as applied to claim 7) shows substantial features of the claimed invention, it fails to disclose means wherein the management server and the routing means include means for performing mutual authentication and means for encrypting data.

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Matchefts et al., Hansen, and Antur et al. as evidenced by Reid et al..

In an analogous art, Reid et al. discloses a system for firewall configuration including means wherein a the management server and the routing means include means for performing mutual authentication and means for encrypting data (column 3, lines 1-7; column 5, lines 51-57). Note that the purpose of the firewall includes authentication and encryption between clients and servers on opposite sides of the firewall.

Given the teaching of Reid et al., a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Matchefts et al, Hansen, and Antur et al. by employing the inclusion of authentication and encryption instructions in the setup information to the firewall. These are common functions of a firewall and must be included in

any setup information. Including them in the automatic setup benefits the system by allowing for guaranteed consistency of this security policy.

Claim Rejections - 35 USC § 102

14. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

15. Claim 9 is rejected under 35 U.S.C. 102(e) as being anticipated by Antur et al..

Antur et al teach a unified firewall management system used for a network in which firewalls are disposed between administrative units (figure 2) in said network wherein:

- a. A management server is disposed to set up management information for said firewalls (column 6, lines 50-51);
- b. Said management server includes a manager program that sets up management information to firewalls on the other side of other firewalls (column 6, lines 50-55). Note that the reference teach configuration of firewalls and security devices possibly inside the firewall.

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Conclusion

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Sidey (USPN 5,954,797) and Lewis et al. (USPN 6,243,747) teach systems for automatic monitoring and updating of configuration and setup information in a network.

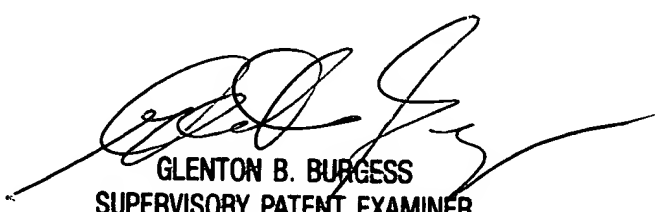
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Parton whose telephone number is (703)306-0543. The examiner can normally be reached on M-F 8:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton Burgess can be reached on (703)305-4792. The fax phone numbers for the organization where this application or proceeding is assigned are (703)746-9242 for regular communications and (703)746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-3900.

Kevin Parton
Examiner
Art Unit 2153

ksp
June 19, 2002



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TECHNOLOGY CENTER 2100

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